

REMARKS

Claims 27, 30, 31, 3-38, 53, 55, 56 and 59 are pending in the present application.

Claim 27 has been amended to specifically recite that the polyamide is MACM with optional diamines, amino acids or lactams.

Claims 1-26, 28, 29, 32, 39-52, 54, 57 and 58 are cancelled.

Claim 59 is newly entered.

No new art is entered as a result of the amendments.

Reconsideration on the merits is respectfully requested.

CLAIM REJECTIONS UNDER 35 USC 112

Claims 30, 39 and 40 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement.

Claim 30 has been amended and claims 39 and 40 cancelled thereby rendering the rejection moot.

CLAIM REJECTIONS UNDER 35 USC 103

Claims 27, 30-35, 37-46 and 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buhler (US 2003/0235666) in view of Plachetta et al. (US 4,877,823) or Stendel et al. (US 4,631,231) or Epstein (US 4,174,358) and Lo

Giudice et al. (EP 1092747) or Ingersoll (US 3,649,541) or Kato (4,908,726) or Kawakami et al. (US 3,850,870) or Ebert et al. (US 6,706,797).

Claims 32, 39-46, 57 and 58 are cancelled and all rejections directed thereto are moot.

Claim 27 is amended and the amendments are applicable to all remaining claims by dependence.

Buhler is cited as disclosing polyamide molded compounds useful for molded articles. Applicant respectfully submits that Buhler teaches a polyamide mixture of MACM and PACM. The reasons for the mixture are described throughout Buhler and most specifically in paragraphs [0022] through [0032].

Buhler, like the instant invention, is focused on making transparent materials which are highly transparent, chemically resistant and having high permanent fatigue strength. As set forth in Buhler, and in at least paragraph [0013] of the instant specification, this has previously required a highly purified material. Additives have been long thought to adversely affect the material.

A material which meets these limitations, according to Buhler, is a mixture of MACM and PACM as the polyamide in combination with long-chain aliphatic dicarboxylic acids. The Office has relied on Buhler based on this primary teaching. In direct contrast to the teachings in Buhler claim 27

specifically recites that the polyamide is MACM without PACM as indicated by the claim language. One of skill in the art would consider this to be an inferior product based on the teachings of Buhler and would therefore be lead away from a polyamide which does not comprise PACM.

Buhler provides an extensive list of the reasoning for the mixture of MACM and PACM. Stress cracks are improved with levels of MACM below 45 mole%. Stress at break and elongation at break are optimum at 30-90 mole% MACM. Pure MACM or pure PACM has unacceptable transparency as demonstrated in Table 1. Based on the foregoing one of skill in the art would be expected to avoid MACM without PACM due to the decreased transparency, decreased stress crack resistance, decreased stress at break and decreased elongation at break.

One of skill in the art would also be expected to avoid the use of additives, particularly to a single polyamide, since those properties which are already inferior would be eroded even further. Claim 27 sets forth a polyamide, which is expected to lead to unacceptably poor properties, combined with a lubricant, which is expected to adversely effect those same properties. This is directly contrary to what one of skill in the art would be expected to attempt.

The Office is considering obvious that which is contrary to the teachings of Buhler.

Plachetta is cited as disclosing lubricants. Plachetta is specific to an opaque material wherein decreasing transparency is of absolutely no concern. One of skill in the art would immediately realize that materials chosen for use in an opaque material would not be expected to be equally applicable in a material wherein the goal is to achieve the highest possible transparency.

Stendel is also cited for teachings related to lubricants. Stendel is specific to ear tags for cattle. Once again these are opaque and one of skill in the art would not consider additives taught therein to be suitable for achieving the highest possible transparency.

Epstein is specific to a toughened polyamide. The polyamid is partially crystalline which clearly indicates there is no concern for transparency.

One of skill in the art would not be expected to combine the materials of any of Plachetta, Stendel or Epstein particularly, in a material which is expected to have inferior transparency to begin with. Any additional loss of transparency would be considered devastating. Even if one did consider combining one of these references with Buhler they would still be lacking the specific lubricant set forth in claim 27 and claims dependent thereon. Lo Guidice, Ingersoll, Kato, Kawakami and Ebert are cited as tertiary references

teaching the specific lubricant. It is apparent that the art does not contain, even in this large number of references, any teaching which teaches both the specific lubricant and the amount to be used.

Lo Giudice teaches a lubricant for wide spread use in such diverse materials as polymers and rubbers. Clearly, there is no concern for transparency in the teachings of Lo Guidice.

Ingersoll is specific to a magnetic media. Again, there is absolutely no concern for transparency.

Kato is specific to an opaque disk cartridge shutter. Again, there is absolutely no concern for transparency.

Kawakami is specific to a dental impression material. Applicants respectfully submit that being able to see the inside of a cavity in a tooth is not expected to be of any advantage to one with skill in any art. These materials are certainly designed to be opaque.

Ebert is specific to materials for DVD and CD's.

In summary, the Office has taken Buhler which teaches against a material with MACM only due to the expected loss of transparency. Secondary references are added to teach the range of lubricants but none of these were for transparent material and none taught the lubricant. Tertiary references were then relied on to recite the specific lubricant even

though none of the references could be relied on for the concentration and none of the references were specific to transparent materials. Based on this combination of art the Office has concluded that it would be obvious for one of skill in the art to arrive at the claimed invention.

If one of skill in the art did travel down this tortuous path of references, even based on hindsight, they would still not be motivated to arrive at the claimed invention. At the very first juncture they would be expected to abort the combination since they would be starting with a poorly transmitting material (MACM absent PACM) and then they would be further eroding the transparency by adding additional materials which are only described for use in opaque applications.

Applicants respectfully submit that the rejection of claims 27, 30-35, 37-46 and 56-58 under 35 U.S.C. 103(a) as being unpatentable over Buhler in view of Plachetta et al. or Stendel et al. or Epstein and Lo Giudice et al. or Ingersoll or Kato or Kawakami et al. or Ebert et al. is based on a combination of art which, even in hindsight, would lead one of skill in the art in a direction which is directly contrary to the claimed invention. The rejection is rendered moot by amendment.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhler, in view of Plachetta et al. or Stendel et al. or Epstein and Lo Giudice et al. or Ingersoll or Kato or Kawakami et al., as applied to claims 27, 30-35, 37-54 and 56-58 above, and further in view of Kaganowicz (US 4,328,646) or Reed et al. (US 4,927,704).

Buhler, Plachetta, Stendel, Epstein, Lo Giudice, Ingersoll, Kato and Kawakami are all discussed above with reference to claim 27 and 34 and all comments are equally applicable here.

In addition to the foregoing deficiencies the eight primary references fail to recite a silicon hard coat. Kaganowicz and Reed are cited as teaching that which is otherwise lacking in the primary references.

Kaganowicz is specific to formation of an abrasive coating. An abrasive coating is contrary to any effort to form a highly transparent material. One of skill in the art would go to great efforts to avoid an abrasive surface. It is inconceivable how one of skill in the art would consider it obvious, even in hindsight, to apply an abrasive coating to a material wherein the desire is to achieve optimum transparency.

Reed is specific to forming an abrasive resistant coating utilizing such materials as silicon dioxide and titanium dioxide. Silicon is used as the binder. Again, one of skill in the art would have no basis for utilizing the binder for a silicon dioxide or titanium dioxide coating in a material wherein the goal is to achieve transparency.

Assuming, arguendo, that one did make the hindsight hard coat using Kaganowicz or Reed. They would still not have any basis for overcoming the deficiencies of the primary references as set forth above.

The rejection of claim 36 under 35 U.S.C. 103(a) as being unpatentable over Buhler, in view of Plachetta et al. or Stendel et al. or Epstein and Lo Giudice et al. or Ingersoll or Kato or Kawakami et al., as applied to claims 27, 30-35, 37-54 and 56-58 above, and further in view of Kaganowicz or Reed et al. is improper and traversed.

Claims 36 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buhler in view of Plachetta et al. or Stendel et al. or Epstein and Lo Guidice et al. or Ingersoll or Kato or Kawakami et al. or Ebert et al. as applied to claims 27, 30-35, 37-54 and 56-58 above and further in view of Hu et al. (US 5,298,587).

Buhler, Plachetta, Stendel, Epstein, Lo Giudice, Ingersoll, Kato, Kawakami and Ebert are all discussed above with reference to claim 27 and 34 and all comments are equally applicable here.

In addition to the deficiencies discussed above the primary references are deficient with regards to any teaching of the specific method of forming the top coat. Hu is cited as mitigating the deficiencies in the primary references.

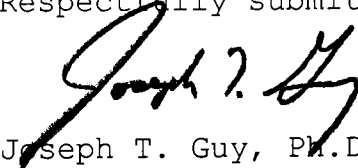
Hu is specific to a method of coating a silicon carbon polymer. There is no teaching in Hu to even suggest these materials would be suitable for use on a transparent material.

The rejection of claims 36 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buhler in view of Plachetta et al. or Stendel et al. or Epstein and Lo Guidice et al. or Ingersoll or Kato or Kawakami et al. or Ebert et al. as applied to claims 27, 30-35, 37-54 and 56-58 above and further in view of Hu et al. is improper and traversed.

CONCLUSIONS

Claims 27, 30, 31, 3-38, 53, 55, 56 and 59 are currently pending and believed to be in condition for allowance. Reconsideration on the merits is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Joseph T. Guy". The signature is stylized with a large, looped initial "J" and a trailing flourish.

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